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APPLICANT : MITSUBISHI ELECTRIC CORP;

INVENTOR : AOKI YUKIO;

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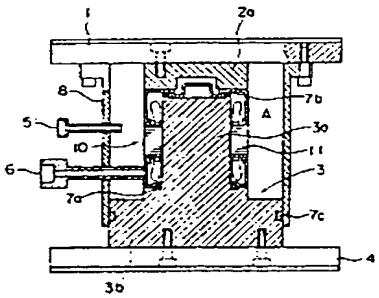
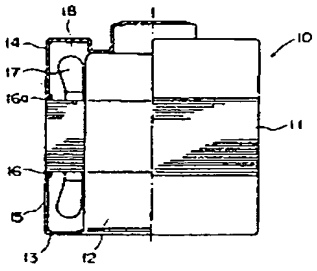
TITLE : RESIN INJECTING DEVICE FOR SMALL-SIZED MOTOR





ABSTRACT : PURPOSE: To lessen the kinds of injection molds and also to facilitate replacement by covering the whole of upper and lower injection molds, which have fixed a stator, with an outside cover airtightly, and then vacuumizing the inside of the cover so as to inject resin into the stator.

CONSTITUTION: A stator 10 is put and fixed between upper and lower molds 2a and 3, and these are covered with an outside cover 8 airtightly. And a vacuumizing nozzle 5 and a resin injection nozzle 6 are attached to this outside cover 8. In this condition, a vacuum pump is operated to suck the air inside an air chamber A and the stator 10 made in the outside cover 8, making it vacuous, and then resin 18 is injected from the resin injection nozzle 6 into the stator 10. When the resin 18 has hardened, the vacuumizing nozzle 5 and the resin injection nozzle 6 are removed from the outside cover 8, and a slide table 4 is let down and the stator 10 is taken out. Hereby, even if the outside diameter or the length of the stator is different, resin can be injected by using the injection mold as it is or merely by replacing some of it.

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Plastic integrated circuit encapsulation box - has staggered connection pins on grids on levels injection moulded to form cavity in which chip is encapsulated and sealed

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Inventor: HENRICLEME M

Number of Countries: 001 Number of Patents: 001
Patent Family:

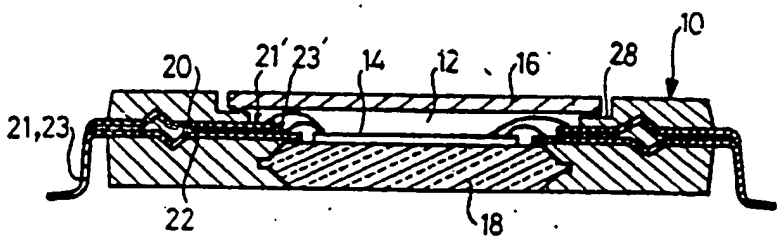
Patent No	Kind	Date	Applicat No	Kind	Date	Week	
FR 2647958	A	19901207	FR 897092	A	19890530	199105	B

Priority Applications (No Type Date): FR 897092 A 19890530

Abstract (Basic): FR 2647958 A

Integrated circuit plastic encapsulation box is formed by: a) preparing at least two metal connection grids (20,22) b) placing the two grids (20,22) in a mould so their ends (21',23') are on at least two different levels near cavity reserved for the circuit chip (14) c) injection moulding a material to form the chip reception cavity (12), encapsulate the connection grids but leave the connection ends (21'23') (21,23) free within the cavity and external to the box. d) Place the chip (14) in the cavity (12) e) Solder connection moves from the chip to the connection grid (21'23') f) Close the cavity with an hermetic lid (16).

ADVANTAGE - Encapsulation costs are reduced using plastic moulding techniques. Operating temp. range is increased by sepn. of encapsulation material expansion/contraction forces from the chip. Connection density is increased and hermetic sealing is improved. (14pp Dwg.No.1/3)



Title Terms: PLASTIC; INTEGRATE; CIRCUIT; ENCAPSULATE; BOX; STAGGER; CONNECT; PIN; GRID; LEVEL; INJECTION; MOULD; FORM; CAVITY; CHIP; ENCAPSULATE; SEAL
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